

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

Claims 1-12 (canceled).

13. (currently amended) A method of switching IP (Internet Protocol) packets at a packet switching system, comprising the steps of:

allocating ~~a pair including an IP address and a port number in~~ Transmission Control Protocol (TCP) or User Datagram Protocol (UDP) to a Virtual Channel Identifier (VCI) to a pair including an IP address and a port number in Transmission Control Protocol (TCP) or User Datagram Protocol (UDP); and

outputting IP packets whose headers have the IP address and the port number via a Virtual Connection (VC) corresponding to the VCI when the packet switching system receives the IP packets,

wherein if IP packet headers have a certain part identical with previously input IP packets, then the allocated VCI is the same as a VCI allocated to the previously input IP packets,

wherein if the certain part of the IP packet headers is different from the previously input IP packets, then the allocated VCI is an idle VCI,

wherein the VC is included in a Virtual Path (VP), and

wherein all IP packets are transmitted, not according to the VCI, but according to a Virtual Path Identifier (VPI) of the VP by transit nodes in an ATM network.

14. (previously presented) The method of switching IP packets according to claim 13, wherein the IP address is a pair of a source IP address and a destination IP address.

15. (currently amended) A method of switching IP (Internet Protocol) packets at a packet switching system, comprising the steps of:

~~allocating a pair including an IP address and information for identifying an application to a Virtual Channel Identifier (VCI) to a pair including an IP address and information for identifying an application;~~ and

outputting IP packets whose headers have the IP address and the information via a Virtual Connection (VC) corresponding to the VCI when the packet switching system receives the IP packets,

wherein if IP packet headers have a certain part identical with the previously input IP packets, then the allocated VCI is the same as a VCI allocated to the previously input IP packets,

wherein if the certain part of the IP packet headers is different from the previously input IP packets, then the allocated VCI is an idle VCI,

wherein the VC is included in a Virtual Path (VP), and

wherein all IP packets are transmitted, not according to the VCI, but according to a Virtual Path Identifier (VPI) of the ~~(VP)~~VP by transit nodes in an ATM network.

16. (previously presented) The method of switching IP packets according to claim 15, wherein the information is a port number in Transmission Control Protocol (TCP) or User Datagram Protocol (UDP).

17. (previously presented) The method of switching IP packets according to claim 16, wherein the IP address is a pair of source IP address and destination IP address.